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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/695,371

10/21/2003

Lawrence W. Yonge III

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EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/695,371	<b>Applicant(s)</b> YONGE ET AL.	
	<b>Examiner</b> PHUC H. TRAN	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 17, 20-27, 30-34 and 36-54 is/are rejected.
- 7) ☒ Claim(s) 12, 13, 15, 16, 18, 19, 28, 29 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/20/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-11, 14, 17, 20,21,23-27,30,31,33,34, and 37-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Benveniste (Patent No. 7,280,517 B2).

- With respect to claims 1-11, 14, 17, 20,21,23-27,30,31,33,34, and 37-54, Benveniste et al. disclose a method/system of operating in a network in which a plurality of station communicate over a shared medium (e.g. the network in Fig. 1 of Benveniste in the shared medium CSMA) comprising:

a plurality stations(e.g. Fig. 1 shows plurality stations) communicate over a shared medium (col. 5, lines 24-25 teaches the shared wireless medium in both contention and contention-free), comprising using a carrier sense multiple access (CSMA) service for ordinary

communication between the plurality of stations (e.g. col. 9, lines 61-64; col. 10, lines 55-57 );  
having a first station (e.g. the station 3 in Fig. 1A) that desires to establish a first session of  
regularly repeated contention-free transmission intervals broadcast information descriptive of  
the first session to the other stations (e.g. the station 3 transmit the beacon packet to other  
stations as show in Fig. 1A and the beginning of a contention-free period see col. 5, lines 50-60),  
wherein the first station can be any of the plurality of stations (e.g. the station 3 in Fig. 1A is a  
wireless station serves as AP of cell); and having the other stations that receive the broadcast  
from the first station (e.g. Fig. 1A shows the other stations receive the beacon packet);

further comprising distributing control over initiation and makeup of transmissions within  
the contention free intervals to a plurality of stations so that any of the plurality of stations can  
independently initiate a transmission within the contention free interval (e.g. the beacon packet  
includes a time so each stations can independence transmitting within the contention-free interval  
see col. 5, lines 50-60; col. 3, lines 25-40; col. 3 lines 65-67 to col. 4, lines 1-3);

further comprising distributing control over the maintenance and termination of  
transmissions within the contention free interval to the plurality of stations so that any of the  
plurality of stations can independently terminate a transmission within the contention free  
interval (see col. 5, lines 15-20; col. 15, lines 13-15);

wherein the plurality of stations act as peers with respect to one another in initiating,  
maintaining, and terminating transmissions within the contention free interval (see col. 5, lines  
15-20; col. 15, lines 13-15);

further comprising distributing control over the maintenance and termination of  
transmissions within the contention free interval to the plurality of stations so that any of the

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plurality of stations can independently terminate a transmission within the contention free interval (see col. 5, lines 15-20; col. 15, lines 13-15; col. 13, lines 30-35);

wherein the regularly repeated contention free interval is approximately periodic (e.g. the CFPs teach in claim 1);

wherein the contention free interval supports a plurality of transmissions, each using a different time segment within the contention free interval, so that a plurality of data streams can be transmitted using the contention free interval, with each data stream generally assigned to one of the different time segments (see column 3 lines 25-40);

wherein at least one data stream is assigned to a plurality of different time segments spaced apart within the same contention free interval, thereby reducing latency for the at least one data stream (e.g. the beacon packet transmits to other stations);

wherein each of the stations sending a transmission during the contention free interval begins transmitting in response to recognizing that the transmission immediately prior to it has concluded (see col. 5, lines 15-20; col. 15, lines 13-15; col. 13, lines 30-35);

wherein transmissions of different priority classes in the system (see column 14 lines 1-6).

wherein a limit is set on the fraction of time within the contention free interval that may be used by transmissions of a particular priority class (see column 7 lines 42-46);

wherein different fractions of the contention free interval are assigned to different priority classes, so that some priority classes are allocated more of the contention free interval than other priority classes (see column 7 lines 42-46);

wherein the sequence of transmissions within the contention free interval is ordered by priority class, with transmissions of higher priority classes occurring earlier than transmissions of lower priority classes (see column 7 lines 42-46);

wherein the length of the contention free interval varies with demand for contention free transmissions (see column 5 lines 50-56);

wherein in addition to the other stations that defer from transmitting during the contention-free intervals (col. 5, lines 9-12).

wherein the information descriptive of the first session comprises the duration of the contention-free intervals (e.g. the station 3 transmit the beacon packet to other stations as show in Fig. 1A and the beginning of a contention-free period see col. 5, lines 50-60);

wherein the information descriptive of the first session comprises a period of the contention-free intervals (e.g. the station 3 transmit the beacon packet to other stations as show in Fig. 1A and the beginning of a contention-free period see col. 5, lines 50-60);

wherein the information descriptive of the first session comprises the time at which the first session will begin (e.g. the station 3 transmit the beacon packet to other stations as show in Fig. 1A and the beginning of a contention-free period see col. 5, lines 50-60);

wherein the information descriptive of the first session comprises the address or addresses of the station or stations that are the intended receivers of the data to be transmitted during the first session (see col. 5, lines 50-55 shows that packets transmit to stations);

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste in view of Haigh (5,793,861).

- With respect to claims 1-11, 14, 17, 20,21,25,31,33,34,37, and 38-54, Benveniste et al. and Sugar et al. disclose all the subject matter of the claimed invention with the exception of the transmissions being terminated following a last in, first out protocol. Haigh from the same or similar field of endeavor teaches the last in and first out (see column 2 lines 30-31). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the transmissions being terminated following a last in, first out protocol as taught by Haigh in the communication network of Benveniste. The transmissions being terminated following a last in, first out protocol as taught by Haigh can be implemented/modified into the network of Benveniste and Sugar by using the FIFO to stop transmission from the other station. The motivation for doing it because it prevents the congestion and provide a throughput of the system.

5. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste in view Hong et al. (2005/0192011).

-With respect to claim 32, Benveniste et al. and Sugar et al. disclose all the subject matter of the claimed invention with the exception of using the unique identifiers in the communications network. Hong et al. from the same or similar field of endeavor teaches the unique identifiers (see column 7, SS unique identifiers in table 3 ). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unique identifiers as taught by Hong et al. in the communication network of Benveniste. The unique identifiers as taught by Hong can be implemented/modified into the network of Benveniste and Sugar since they do teach identifiers. The motivation for doing it because it adapts to the network requirements.

#### ***Allowable Subject Matter***

6. Claims 12,13,15,16,18,19,28,29, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUC H TRAN/  
Examiner, Art Unit 2616